

REMARKS

The claims now pending in the application are Claims 1 to 3, 5 to 10 and 12 to 18, the independent claims being Claims 1, 8, 16 and 17. Claims 4 and 11 have been cancelled herein. Claims 1, 8 and 15 to 17 have been amended herein.

In the Official Action dated April 2, 2004, the title was objected to on formal grounds. Claims 3, 10 and 15 were rejected under 35 U.S.C. § 112, first paragraph, on formal grounds. Claims 1, 4 to 8, 11 to 14, 15/18, 15/11 to 15/14 and 16 to 18 were rejected under 35 U.S.C. § 103(a), as unpatentable over U.S. Patent No. 6,075,949 (Hatakenaka) in view of U.S. Patent No. 5,963,255 (Anderson), and Claims 2, 3, 9, 10, 15/9 and 15/10 were rejected under 35 U.S.C. § 103(a), as unpatentable over the Hatakenaka '949 patent and the Anderson '255 patent, in view of U.S. Patent No. 5,527,630 (Nagata). Reconsideration and withdrawal of the objection and rejections respectfully are requested in view of the above amendments and the following remarks.

Initially, in a formal matter, Applicant has amended the title of the invention, as requested by the Examiner. No new matter has been added.

The formal rejection of Claims 3, 10 and 15 respectfully is traversed. Nevertheless, without conceding the propriety of the rejection, Claims 3 and 10 (and thereby Claim 15/10) have been amended to clarify the feature objected to by the Examiner, and thereby to improve their form. In this regard, Applicant notes that the featured 'warning' can be presented by any display means other than the display means for displaying the image, including a separate (e.g., dedicated) display, or via the viewfinder, as disclosed in the present application. No new matter has been added.

The rejections of the claims over the art respectfully is traversed. Nevertheless, without conceding the propriety of the rejections, independent apparatus Claim 1 has been amended to recite the features of prior dependent Claim 4, which has been cancelled herein in lieu thereof; similarly, independent method Claim 8 has been amended to recite the features of prior dependent Claim 11, which has been cancelled

herein in lieu thereof. Independent Claims 16 and 17 similarly have been amended to recite the features of prior dependent Claims 4 and 11, respectively. Claim 15 has been amended to cancel prior multiple dependent Claim 15/11. No new matter has been added.

The present invention relates to a novel image processing apparatus and method. In one aspect, as now recited in independent Claim 1, the present invention relates to an image processing apparatus comprising: recording means for recording given image data or data other than the image in a recording medium; display means for displaying the image; a display unit for indicating that a process is being executed, the display unit having a lower power consumption than the display means; power supply means for supplying electric power to the display means and the display unit; judging means for judging, during writing of the image data or the data other than the image in the recording medium, if a power supply capacity of the power supply means becomes smaller than a predetermined first capacity; recording control means for inhibiting a new image or data other than the image from being recorded after completion of writing to the recording means when a judging result of the judging means in relation to the first capacity is affirmative; and power supply control means for reducing the electric power to be supplied to the display means when the supply capacity of the power supply means becomes smaller than the predetermined first capacity, wherein, when the power supply control means reduces the electric power to be supplied to the display means, the display unit is used to display that a process is being executed.

In a similar aspect, independent Claim 8 recites parallel features with respect to a method of controlling an image processing apparatus.

In another aspect, as now recited in independent Claim 16, the present invention relates to an image processing apparatus comprising: recording means for recording given image data or data other than the image in a recording medium; power supply means for supplying electric power to the image processing apparatus; judging means for judging, during writing of the image data or the data other than the image in the

recording medium, if a power supply capacity of the power supply means becomes smaller than a predetermined first capacity; recording control means for inhibiting a new image or data other than the image from being recorded after completion of writing to the recording means when a judging result of the judging means in relation to the first capacity is affirmative; and power supply control means for reducing the electric power to be supplied to the image processing apparatus while assuring electric power to be supplied to the recording means when the supply capacity of the power supply means becomes smaller than the predetermined first capacity, wherein, when the power supply control means reduces the electric power to be supplied to the image processing apparatus, a separate display unit is used to display that a process is being executed, and wherein power consumption of the separate display unit is lower than power consumption of the image processing apparatus.

In a similar aspect, independent Claim 17 recites parallel features with respect to a method of controlling an image processing apparatus.

Thus, in each aspect, the present invention generally relates to an image processing apparatus or method including the features of recording control means (or step) for inhibiting a new image or data other than the image from being recorded after completion of writing to the recording means (medium) when a judging result of the judging means (or step) in relation to the first capacity is affirmative. In this manner, the apparatus and method of the present invention controls whether or not to shut down the power supply capacity detection while the writing is being performed. That is, if the power supply is shut down while the data is being written to the recording medium, such shutdown may damage the data; even if the power supply capacity should be shut down under ordinary circumstances, when the data writing is being performed, the power supply to the display is reduced so as to continue writing the data as much as possible until writing is complete. Even in such a case, if a user does not recognize that writing is ongoing after the display is shutdown, there is a risk that the user may inadvertently remove the recording

medium (such as a memory stick) from the body of the image processing apparatus before writing of the data is complete. The present invention thus provides a significant improvement over conventional image processing apparatuses and methods, in that, in the event of a reduced power supply, it provides an alternative, low power consumption display notifying the user that writing is ongoing, and then, after the writing of data to memory is complete, the power supply is promptly shut down to protect the data.

Applicant submits that the prior art fails to anticipate the present invention. Moreover, Applicant submits that there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Without conceding the propriety of the Examiner's characterization of the cited art, Applicant submits that the Hatakenaka '949 patent and the Anderson '255 patent, individually and collectively, fail to disclose or suggest the feature of detecting power supply capacity during writing of data to memory, or determining to shut down based on a judgement that the power supply capacity is less than a predetermined capacity, let alone the features of suppressing the power supply to the image display means, and then shutting down after writing of data to memory is complete, as disclosed and claimed in the present application.

The Nagata '630 patent is cited for disclosing the feature of displaying an alarm when a battery check fails to be above a threshold level. However, the Nagata '630 patent is not understood to disclose the feature of providing a display other than the image display means for displaying such an alarm. Nor is the Nagata '630 patent understood to add anything to the Hatakenaka '949 patent and/or the Anderson '255 patent that would make obvious the claimed invention.

For the above reasons, Claims 1, 8, 16 and 17 are believed allowable over the cited art.

Claims 2, 3, 5 to 7, 9, 10, 12 to 15 and 18 depend from Claims 1, 8 and 17, respectively, and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of independent Claims 1, 8 and 17, and is believed allowable in its own right. Individual consideration of the dependent claims respectfully is requested.

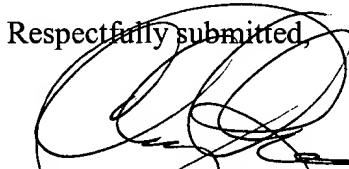
Finally, in a formal matter, by separate paper filed concurrently herewith, Applicant has submitted a Request for Approval to Amend the Drawings and Submission of Corrected Formal Drawings. In that Request/Submission, Applicant has made minor formal amendments to Figures 2 and 3, to conform these figures with the original written disclosure. No new matter has been added.

Applicant respectfully requests that the present Amendment be entered under 37 CFR 1.116. Applicant submits that the present amendments merely are formal in nature, reduce the number of claims for consideration, and place the claims and application in allowable form. Applicant believes the present amendments are necessary to obviate the Examiner's comments in the Official Action, and were not previously submitted because Applicant believes the prior claims are allowable.

Applicant believes that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action, and submits that the application is in allowable form. Favorable consideration of the claims and passage to issue of the present application at the Examiner's earliest convenience earnestly are solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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IN FIGURE 2:

Please add reference label --S208-- to "END", as shown.

IN FIGURE 3:

Box "M342" change "DATA" to -- DATE--, as shown.

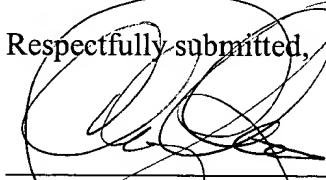
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The proposed amendments merely conform the drawings with the original written disclosure. No new matter has been added.

Applicant requests that the corrected formal drawings be substituted for the corresponding original drawing sheets upon approval of the proposed changes.

Favorable consideration is requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,


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FIG. 2

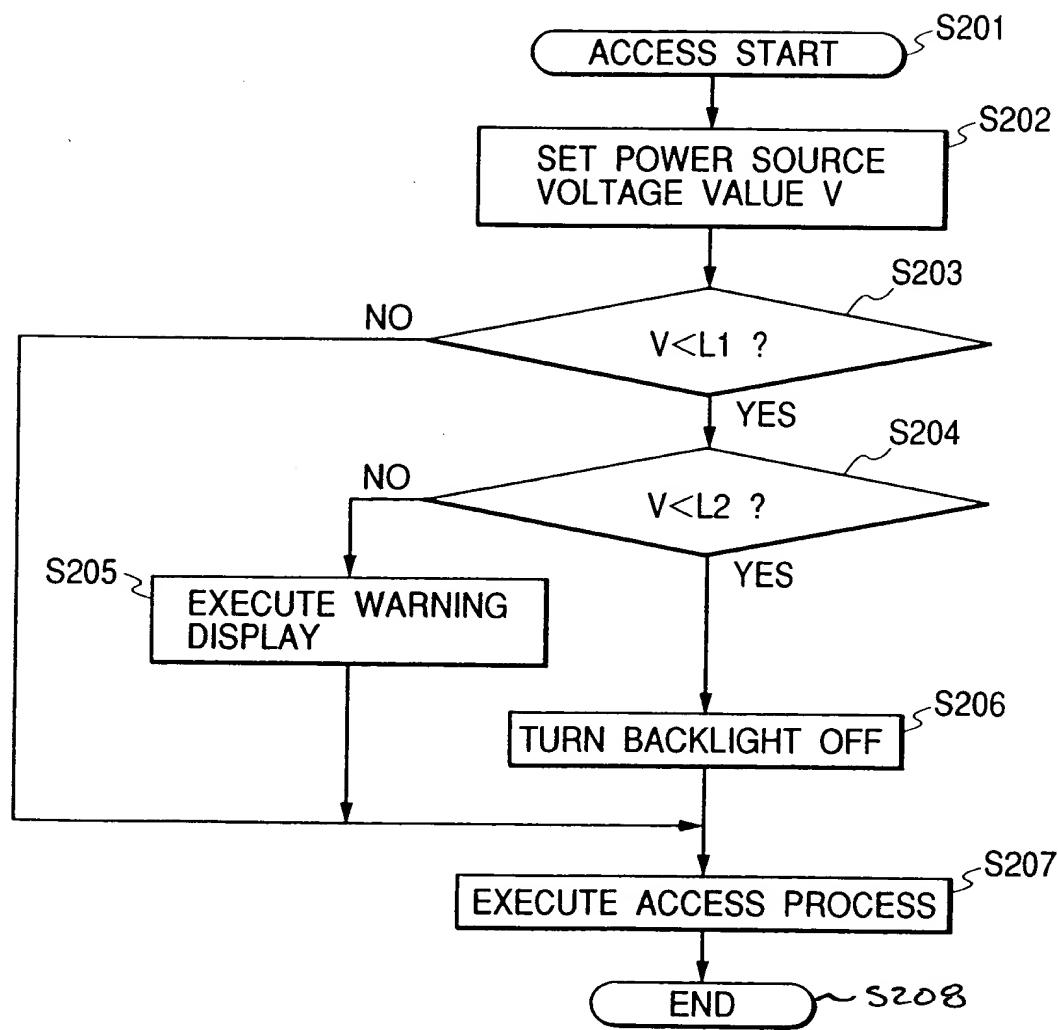




FIG. 3

